

ABSTRACT

A friction clutch pack utilizes permanent magnets and induction rings to actuate a ball ramp actuator which come in turn, engages the friction clutch pack to transfer torque between drive and driven members in, for example, a motor vehicle transfer case. The permanent magnets and induction rings may also be utilized as a synchronizer to urge the speeds of two rotating members into synchronism to facilitate engagement of a direct coupling i.e., a dog clutch.